Theme Area: Water Resources

Program Area: Water Conservation - WRRL

Project No.: WR00.12

Project Title: Developing Prototype Water Measurement and Monitoring

Principal Investigator: Robert F. Einhellig, e-mail: reinhellig@do.usbr.gov

Co-Principal Investigators: Clifford A. Pugh

Abstract: Increasing demand and competition for water supplies in the Western United States is requiring increasingly more rigorous and efficient management of water supply and conveyance systems. Central to this management effort is a need to more accurately quantify water delivery and usage. Many irrigation and canal systems are still operated using the same techniques and technology they were designed with 50 or more years ago, with only minimal flow measurement capabilities integrated into the system. As competition for water supplies increases, these systems are finding it necessary to seek out new or improved methods to measure water deliveries to better manage and conserve their limited allocations of water.

The Bureau of Reclamation's Water Resources Research Laboratory is working to develop and transfer appropriate flow measurement methods and techniques to water supply and conveyance systems throughout the West. High cost and technological complexity are frequently stumbling blocks in efforts to integrate better flow measurement technologies into existing projects. The goal of this research project is to identify and implement reliable, low-cost prototype water measurement systems. Once these flow measurement systems are installed, the project will monitor the performance and field experience of the systems to develop an application history which would help to guide and encourage future system design and selection.

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